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ABSTRACT

This report compares the effectiveness of two microcomputer based career guidance systems that are gaining widespread acceptance--the System of Interactive Guidance and Information (SIGI), produced by the Educational Testing Service, and DISCOVER, produced by the American College Testing Program. Both systems are designed to lead the user through an evaluation of abilities, interests, and/or values to establish a personal basis for choosing career alternatives. The two systems were evaluated by two distinct groups of Texas A&M students--beginning undergraduates and master's level counseling students. This report chronicles the results of that evaluation, as well as the methods used to collect and interpret student data. The results show that both undergraduate and graduate students gave the SIGI and DISCOVER systems high ratings, showing very little difference in their preference for one system over the other. Sample reaction questionnaires are included, together with statistical information on the responses of both groups. A concluding discussion comments on research in the field of computerized guidance counseling and suggests a need for high standards in selection and administration of such systems. (JB)

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Title:

Using Microcomputer Based Career Guidance Systems in
a University Setting: Reaction Data from Users

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Historical & Theoretical Framework

Since the mid 1960's, computers have been programmed to perform complex administrative, clerical, and teaching functions that make use of their ability to store and retrieve large amounts of data. Interest in computer-assisted instruction led eventually to researchers looking at the technical feasibility of computerized career guidance. During the late 1960's and 1970's, many researchers, primarily supported by funds from government and private industry, have developed ever more sophisticated and comprehensive computerized career guidance systems. Growth of these computer systems was encouraged due to the increasing demands on inadequate numbers of career counselors to have relevant, accurate, up-to-date information for and about increasing numbers of students. Counselors were finding it too time consuming to store, update, and access the necessary career-oriented information, and still have time for needed personal counseling. Counseling resources were being used inefficiently and students' career decisions were being made haphazardly. Counseling professionals saw the computer as a useful tool to improve career guidance services.

Statement of the Problem

Two of the microcomputer based career guidance systems which are gaining widespread acceptance are the System of Interactive Guidance and Information (SIGI), produced by Educational Testing Service (ETS) and Discover, produced by the American College Testing (ACT) program. Both systems attempt to lead the user through an evaluation of abilities, interests, and/or values to establish a personal basis for choosing career alternatives. This personal inventory is applied to extensive occupational and educational information stored within the system to enable the user to make realistic career decisions. These and other similar computer based guidance systems offer the opportunity for

revolutionizing the career guidance services provided to high school and college students. However, because of their recent adaptations to microcomputers, limited research exists evaluating their effectiveness. It is the purpose of this research to seek answers to the following questions concerning the effectiveness of the SIGI and Discover systems on four characteristics: (a) ease of use, (b) self assessments used, (c) quality of information provided, and (d) perceived total effectiveness.

Question 1 After a sufficient period of use, how do undergraduate university students evaluate each system?

Question 2 After initial training and experience with the SIGI and Discover systems, how do counselors in training evaluate each system?

Method

Subjects

Two distinct groups of Texas A&M students were utilized in answering the two questions posed for this phase of the study. For the purposes of answering question 1, a single undergraduate class of students enrolled in EPSY 102 Career Development for the Fall Semester of 1984 were studied. This course has as its purpose assisting freshman, sophomore and undeclared majors with becoming more aware of their abilities, interests and values and the requirements of tentatively chosen careers. The course is worth two credits and normally meets three times per week for 50 minutes. For the purpose of this research, the class of 44 students were randomly assigned to either the SIGI or Discover system and were expected to devote approximately one class period per week on only the system to which they were assigned. The other two class periods were devoted to regular class activities. Exposure to each system was gained over approximately a two month period after which reaction data were collected. Since this research was part of a larger study these same subjects were also pre

and post tested with various other instruments designed to assess various aspects of career development. However, only the reaction data for the 39 students which completed the treatment are reported here. The SIGI group averaged 4.5 hours on the system and the Discover group averaged 4.9 hours.

The second group of subjects studied for the purposes of answering question 2 were 24 graduate students enrolled in the three credit course EPSY 632 Educational and Occupational Information which was part of a Master's degree program in counseling. These students were introduced to both systems and assigned to experience each system on their own time over the semester. Reaction data were collected from 22 students in this class at the end of the semester with each student evaluating both systems separately. Students in this class averaged 1.3 hours on SIGI and 1.4 hours on Discover.

Instrumentation

Both SIGI and Discover were delivered via IBM XT microcomputers. The instrument utilized to collect reaction data from subjects in this study was developed by the project staff based on the characteristics selected for study. These characteristics and many of the items were derived from a review of literature in the area of career development and computer assisted guidance. A five point Likert scale was chosen as the format for most of the items with a few items utilizing a multiple choice format. A section of biographical data was also included. The instrument was pilot tested, revised and printed on two sides of green 8 1/2 x 11 paper. A copy of the reaction questionnaire is attached as an appendix to this paper.

Analysis

All data collected were entered into the TAMU main frame twin amdahl system by a remote wylbur terminal. The SPSSx statistical package was used to compute frequency/percent, means, chi square, independent t and dependent t tests for

all items in the four characteristic domains. Tables 1, 2, 4, 5 and 6 present this data. Some additional data relevant to the study, but not part of the questions posed are presented in Tables 3 and 7.

Findings

Thirty-nine students who were enrolled in EPSY 102 Career Development completed the questionnaire after they had either used the SIGI or Discover computer-based career guidance system. Approximately half of the students used SIGI while the other half used Discover. Table 1 lists the combined reactions to the two computer-based guidance systems for the Likert type questionnaire items. These undergraduate students rated the computer-based guidance systems rather high on most items by responding with 4's and 5's. Responses to Items 16 and 17 were somewhat lower on the five-point scale with some students rating the systems average to low on opportunity to make changes within the program, and ease of printing information desired.

Table 2 reports the findings on the reaction questionnaire comparing the students' ratings of the SIGI and Discover systems. There were no significant differences in the ratings of the two systems with the exception of Item 16 where there was a difference that was significant at the .05 level. Discover received a higher rating on "Opportunity to make changes within the system."

Responses to the multiple choice items of the reaction questionnaire are reported in Table 3. There were no significant differences in the EPSY 102 students' responses for Discover and SIGI; therefore, the students' responses for the two systems are combined in Table 3. Item 21 indicated that almost 1/3 of the students felt that the computer-based guidance systems exposed them to new information about themselves, while 2/3 of the students felt the systems confirmed what they knew about themselves. Only 2 students felt the information reported was unrelated to them. For Item 26, 58% of the students reported that

they had received all the information that they needed. The remaining 42% of the students all needed information but in different areas (8% needed educational information, 18% needed occupational information, and 16% needed information on decision making). Responses to item 31 indicate that the career guidance systems helped the students narrow their career choices - 93% had either selected a career or narrowed their choices.

Tables 4, 5, 6 and 7 report the responses of graduate students who were enrolled in EPSY 632 - Educational and Occupational Information. Most of these students were enrolled in a masters level counselor training program, and they completed separate questionnaires after using both the SIGI and Discover programs. Table 4 reports the graduate students' reactions to Discover with average to high ratings for most of the questionnaire items. A few items had somewhat lower ratings (16, 17, 25, 27, 29). Generally it can be concluded that these counselors-in-training responded very favorably to the Discover system.

The same group of graduate students rated the SIGI system as reported in Table 5. Again, the ratings were average to high with items 16 and 17 receiving somewhat lower ratings. A parenthetical expression instructs the questionnaire respondents to not answer Item 19 for SIGI; however, eight students rated SIGI average to high on "Measure of occupational interest used" when SIGI does not use an interest measure. The response to this item indicates the students' tendency to rate all items high and not pay too much attention to the content of the questionnaire items. This raises some questions about the validity of the students' ratings.

Table 6 reports the findings on the reaction questionnaire comparing the graduate students' ratings of both the SIGI and Discover systems. Only item 25 yielded a significant difference and that was at the .01 level. The graduate students rated SIGI higher in "Helpfulness of the information provided." SIGI

seems to be a more sophisticated guidance system than Discover, and it seems that the graduate students (counselors in training) were impressed with SIGI's emphasis on values and decision-making skills. There was no significant difference in the undergraduate students' ratings of the two systems for Item 25 (see Table 2). The difference in ratings of SIGI and Discover for the undergraduate students was in Item 16 where they rated Discover higher on "Opportunity to make changes within the program." The undergraduate students were actually using each computer-based guidance system to assist themselves in making career decisions. In contrast, the graduate students used the systems not as career planning devices for themselves, but as professionals who might be using the systems for counseling with clients. This difference in user intent should be considered when comparing the two groups' reactions to SIGI and Discover.

Responses to the multiple choice items of the reaction questionnaire as reported in Table 7 for the graduate students may have only limited meaning for this investigation. Items 21, 26, and 31 ask respondents if the career information applied to them, if they needed more information, and if they had narrowed their career choices. Since the graduate students were not using the computer-based guidance systems to make their own career plans, but to become familiar with the systems, it is not surprising that 82% of the students said the systems confirmed what they already knew about themselves. Also, 75% of the students reported that they had received all the information that they needed. On Item 31, 80% of the students said that they had selected an occupation or were no closer to a decision than before using the system.

Discussion

In a recent article in a special issue of the Journal of Counseling and Development on computers in counseling, Pyle stated that the tidal wave of

technology is here (Pyle, 1984). He raised the question of how this tidal wave will be absorbed by the profession of career counseling. Computer-assisted guidance and information systems are not new, but the use of these systems has become widespread in the 1980's with the availability of microcomputers. A recent national survey indicated that about a quarter of the high schools in the U.S. are making use of computer-based guidance systems, and the number has probably increased substantially since the survey (Katz, 1984). Katz estimates that 1,000 postsecondary institutions are also using computerized guidance and information systems. With so many educational institutions already using these systems and with many more institutions considering their use, it is extremely important to take a close look at the computer guidance systems available and identify distinctive capabilities and limitations of each system.

Maze (1984) suggests that the first step in selecting a computerized guidance system is to evaluate the needs of the educational institution seeking such a system. The next step is to gather literature on the available software and determine which programs seem to be appropriate. Consideration should also be given to how various systems fit into the overall counseling program (Gelesko McKee and Schroedl Chiavaroli, 1984). Areas that need to be considered include physical location of the computer, staffing needs, support materials, implementation strategies, and counselor attitudes.

In an article on the computer and career development, Jo Ann Harris-Bowlsby (1984) identifies the best capabilities of the computer. They are:

1. Interactive dialogue.
2. Storage of data files.
3. Searching of data files.
4. Assessment and interpretation.
5. Individualization of treatment.

These capabilities can enhance career counseling by (a) assisting clients in

making career choices, (b) assisting clients in acquiring decision making skills, and (c) enhancing the general adjustment status of clients (Pyle, 1984). These capabilities and outcomes should be considered when selecting a computer-based guidance system.

The results of this study indicate that the undergraduate students and masters-level counseling students gave both the SIGI and Discover systems mostly high ratings, and there was very little difference in the ratings of the two systems. This study simply evaluated user attitudes toward each system through the use of a post questionnaire. The study is preliminary to other studies that will investigate the effect of these systems on student learning and development using more extensive evaluation tools.

Martin Katz (1984), a pioneer and leader in the computer-assisted guidance field issued a warning in his recent article in the Journal of Counseling and Development. He points out that an individual counselor can do harm, but the extent is limited because each counselor works with a relatively small clientele each year. The damage is also limited by the variability of the counselor from one occasion to another, and the mistakes a counselor makes at one time with one client may be avoided at other times with other clients. Clientele interacting with a computer-based guidance system over a period of a year, however, may number in the hundreds of thousands, and the computer guidance system is completely consistent. Therefore, it is important that there are high standards for computer-based guidance systems and that the evaluation of these systems be extensive and ongoing.

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Table 1.

Frequency of Responses by Percent as Reported on the Reaction Questionnaire for EPSY 102, Fall, 1984, for SIGI and Discover.

Question	N	PERCENT (%)					5
		1	2	3	4		
<u>EASE OF USE OF THE SYSTEM</u>							
11. Availability of the system when you wanted it.	39	3	3	3	37	55	
12. Ease of using the keyboard.	39	0	0	3	26	71	
13. Quality of the screen display.	39	0	0	5	24	71	
14. Clear directions to operate within the program.	39	3	0	5	26	66	
15. Reading level of the information provided.	39	3	3	5	21	68	
16. Opportunity to make changes within the program.	38	5	8	32	27	27	
17. Ease of printing the information you wanted.	39	11	13	37	11	29	
<u>SELF ASSESSMENTS USED BY SYSTEM</u>							
18. Estimate of your ability level used.	39	3	8	16	53	21	
19. Measure of occupational interest used.	23	0	0	9	59	32	
20. Measure of work values used.	39	0	3	11	53	34	
<u>QUALITY OF THE OCCUPATIONAL AND EDUCATIONAL INFORMATION</u>							
22. Arrangement of the information provided.	39	3	0	3	53	42	
23. Correctness of the information provided.	39	0	0	8	45	47	
24. Amount of the information provided.	39	0	3	3	47	47	
25. Helpfulness of the information provided.	39	3	0	5	45	47	
<u>PERCEIVED TOTAL EFFECTIVENESS</u>							
27. How helpful was the computer system?	39	3	3	8	40	47	
28. How enjoyable was the experience?	39	5	0	18	34	42	
29. How certain are you about your career choice as a result of using the computer system.	39	0	11	21	47	21	
30. How satisfactory was the computer system compared to a non-computer approach?	39	0	5	0	13	82	

Table 2.

Statistical Findings on the Reaction Questionnaire for EPSY 102,
Fall, 1984 for SIGI and Discover.

Question	$\bar{X}$	chisq	$\bar{X}_{sig}$	$\bar{X}_{dis}$	t
<u>EASE OF USE OF THE SYSTEM</u>					
11. Availability of the system when you wanted it.	4.4	4.5	4.5	4.3	.7
12. Ease of using the keyboard.	4.7	.9	4.7	4.7	.4
13. Quality of the screen display.	4.7	2.9	4.6	4.7	.5
14. Clear directions to operate within the program.	4.5	4.9	4.6	4.5	.2
15. Reading level of the information provided.	4.5	4.4	4.4	4.6	.3
16. Opportunity to make changes within the program.	3.6	7.2	3.2	4.0	2.2 *
17. Ease of printing the information you wanted.	3.4	7.1	3.6	3.2	.9
<u>SELF ASSESSMENTS USED BY SYSTEM</u>					
18. Estimate of your ability level used.	3.8	5.7	3.7	4.0	.9
19. Measure of occupational interest used.	4.2	.5	4.5	4.2	.7
20. Measure of work values used.	4.2	3.4	4.2	4.2	.3
<u>QUALITY OF THE OCCUPATIONAL AND EDUCATIONAL INFORMATION</u>					
22. Arrangement of the information provided.	4.3	2.2	4.2	4.4	.7
23. Correctness of the information provided.	4.4	1.9	4.4	4.4	.5
24. Amount of the information provided.	4.4	2.3	4.3	4.5	1.0
25. Helpfulness of the information provided.	4.3	1.4	4.3	4.4	.5
<u>PERCEIVED TOTAL EFFECTIVENESS</u>					
27. How helpful was the computer system?	4.3	6.4	4.3	4.3	.1
28. How enjoyable was the experience?	4.0	.4	4.0	4.2	.4
29. How certain are you about your career choice as a result of using the computer system.	3.8	.1	3.8	3.8	.1
30. How satisfactory was the computer system compared to a non-computer approach?	4.6	1.7	4.8	4.7	.5

* Significant at the .05 level

Table 3.

Responses by Number/Percent to Multiple Choice Items for
EPSY 102, Fall, 1984 for SIGI and Discover.

21. Check the following statement which best applies to the self assessment component:

Number/Percent

12/29	Exposed me to new information about myself.
25/66	Confirmed what I know about myself.
1/ 3	Conflicted with what I know about myself.
1/ 3	Did not pertain to me.

Chi Square = 6.1

26. Check the following statement which best applies to the information component:

Number/Percent

22/58	I received all the information I needed.
3/ 8	I needed more information on educational opportunities.
8/18	I needed more information on occupations.
6/16	I needed more information on decision making.

Chi Square= 3.8

31. Since using the computer based career guidance system:

Number/Percent

14/37	I have selected an occupation.
16/40	I am seriously considering several occupations.
6/16	I have narrowed my choice down to a broad group of occupations.
3/ 8	I have developed some vague ideas about occupations.
0/ 0	I am no closer than before.

Chi Square= 1.5

Table 4.

Frequency of Responses by Percent as Reported on the Reaction
Questionnaire for EPSY 632, Fall, 1984. for Discover

Question	N	1	PERCENT (%)				5
			2	3	4		
<u>EASE OF USE OF THE SYSTEM</u>							
11. Availability of the system when you wanted it.	22	0	0	9	36	55	
12. Ease of using the keyboard.	22	0	0	0	50	50	
13. Quality of the screen display.	22	0	5	14	36	46	
14. Clear directions to operate within the program.	22	0	5	18	41	36	
15. Reading level of the information provided.	22	5	0	32	46	18	
16. Opportunity to make changes within the program.	22	5	14	46	18	18	
17. Ease of printing the information you wanted.	21	0	10	38	29	24	
<u>SELF ASSESSMENTS USED BY SYSTEM</u>							
18. Estimate of your ability level used.	20	5	0	35	55	5	
19. Measure of occupational interest used.	21	0	5	24	62	10	
20. Measure of work values used.	21	0	5	33	52	10	
<u>QUALITY OF THE OCCUPATIONAL AND EDUCATIONAL INFORMATION</u>							
22. Arrangement of the information provided.	22	5	0	32	46	23	
23. Correctness of the information provided.	21	0	0	29	57	14	
24. Amount of the information provided.	22	0	0	46	46	9	
25. Helpfulness of the information provided.	22	0	23	46	32	0	
<u>PERCEIVED TOTAL EFFECTIVENESS</u>							
27. How helpful was the computer system?	22	0	18	55	18	9	
28. How enjoyable was the experience?	22	0	0	32	59	9	
29. How certain are you about your career choice as a result of using the computer system.	21	5	14	29	33	19	
30. How satisfactory was the computer system compared to a non-computer approach?	22	0	5	14	59	23	

Table 5.

Frequency of Responses by Percent as Reported on the Reaction
Questionnaire for EPSY 632, Fall, 1984, for SIGI.

Question	N	1	PERCENT (%)				5
			2	3	4		
<u>EASE OF USE OF THE SYSTEM</u>							
11. Availability of the system when you wanted it.	23	0	0	13	30	57	
12. Ease of using the keyboard.	23	0	0	9	52	39	
13. Quality of the screen display.	21	0	5	14	43	38	
14. Clear directions to operate within the program.	23	0	4	26	44	26	
15. Reading level of the information provided.	22	5	0	18	59	18	
16. Opportunity to make changes within the program.	23	4	17	35	30	13	
17. Ease of printing the information you wanted.	22	5	14	41	23	18	
<u>SELF ASSESSMENTS USED BY SYSTEM</u>							
18. Estimate of your ability level used.	21	5	5	33	43	14	
19. Measure of occupational interest used.	8	0	0	50	38	13	
20. Measure of work values used.	22	0	0	23	50	27	
<u>QUALITY OF THE OCCUPATIONAL AND EDUCATIONAL INFORMATION</u>							
22. Arrangement of the information provided.	22	0	0	36	41	23	
23. Correctness of the information provided.	21	0	0	24	62	14	
24. Amount of the information provided.	22	0	5	27	50	18	
25. Helpfulness of the information provided.	21	0	14	29	48	10	
<u>PERCEIVED TOTAL EFFECTIVENESS</u>							
27. How helpful was the computer system?	23	0	9	44	35	13	
28. How enjoyable was the experience?	23	0	4	30	48	17	
29. How certain are you about your career choice as a result of using the computer system.	21	10	5	24	48	14	
30. How satisfactory was the computer system compared to a non-computer approach?	22	0	0	14	59	27	

Table 6.

Statistical Findings on the Reaction Questionnaire for EPSY 632, Fall, 1984, for SIGI and Discover.

Question	Xsigi	Xdis	t
<u>EASE OF USE OF THE SYSTEM</u>			
11. Availability of the system when you wanted it.	4.5	4.5	1.00
12. Ease of using the keyboard.	4.4	4.5	1.14
13. Quality of the screen display.	4.1	4.2	.20
14. Clear directions to operate within the program.	4.0	4.1	.49
15. Reading level of the information provided.	3.9	3.7	1.14
16. Opportunity to make changes within the program.	3.4	3.3	.37
17. Ease of printing the information you wanted.	3.4	3.7	1.00
<u>SELF ASSESSMENTS USED BY SYSTEM</u>			
18. Estimate of your ability level used.	3.7	3.6	1.00
19. Measure of occupational interest used.	3.7	3.3	1.00
20. Measure of work values used.	4.1	3.7	1.83
<u>QUALITY OF THE OCCUPATIONAL AND EDUCATIONAL INFORMATION</u>			
22. Arrangement of the information provided.	3.9	3.9	0.00
23. Correctness of the information provided.	4.0	3.9	1.00
24. Amount of the information provided.	3.8	3.7	.90
25. Helpfulness of the information provided.	3.5	3.1	2.63 **
<u>PERCEIVED TOTAL EFFECTIVENESS</u>			
27. How helpful was the computer system?	3.5	3.2	2.01
28. How enjoyable was the experience?	3.8	3.8	.37
29. How certain are you about your career choice as a result of using the computer system.	3.7	3.6	1.00
30. How satisfactory was the computer system compared to a non-computer approach?	4.2	4.1	1.00

** Significant at the .01 Level

Table 7.

Responses by Number/Percent to Multiple Choice Items for EPSY 632, Fall, 1984, for SIGI and Discover.

21. Check the following statement which best applies to the self assessment component:

Number/Percent

<u>SIGI</u>	<u>Discover</u>	
3/13	1/5	Exposed me to new information about myself.
19/83	18/82	Confirmed what I know about myself.
0/0	2/9	Conflicted with what I know about myself.
1/4	1/5	Did not pertain to me.

26. Check the following statement which best applies to the information component:

Number/Percent

<u>SIGI</u>	<u>Discover</u>	
16/76	15/75	I received all the information I needed.
1/5	2/10	I needed more information on educational opportunities.
4/19	2/10	I needed more information on occupations.
0/0	1/5	I needed more information on decision making.

31. Since using the computer based career guidance system:

Number/Percent

<u>SIGI</u>	<u>Discover</u>	
5/33	4/27	I have selected an occupation.
1/7	2/13	I am seriously considering several occupations.
1/7	1/7	I have narrowed my choice down to a broad group of occupations.
0/0	0/0	I have developed some vague ideas about occupations.
8/53	8/53	I am no closer than before.

COMPUTER ASSISTED CAREER GUIDANCE REACTION QUESTIONNAIRE *

I. BIOGRAPHICAL INFORMATION

For Research Use
Leave Blank

1. Name _____
2. What is your current educational/professional status?
 _____ TAMU undergraduate (if in course, prefix & No _____)
 _____ TAMU graduate student (if in course, prefix & No _____)
 _____ TAMU faculty/staff.
 _____ Practicing school counselor.
 _____ High School student.
 _____ Other (name) _____
3. If a professional educator, years of experience in the field? _____
4. What is your age? _____ 5. What is your sex? _____
6. What is your level of experience with computers? (check one)
 _____ Low _____ Low Average _____ Average _____ High Average _____ High
7. Which of the following career guidance systems have you experienced? (check all that apply)
 SIGI _____ Discover _____ Other(name) _____
8. Which of the following computer guidance systems are you evaluating with this questionnaire? (check only one)
 SIGI _____ Discover _____ Other(name) _____
9. Time spent on computer system being evaluated?(approx. hours) _____
10. How many modules did you complete? (check all that apply on system being evaluated).

SIGI Values _____ Locate _____ Compare _____ Planning _____ Strategy _____	Discover Self Information _____ Career Information _____ Occupational File _____ Educational Institutions _____
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FOR EACH OF THE FOLLOWING ITEMS, RATE THE COMPUTER SYSTEM BEING EVALUATED ON A FIVE POINT SCALE:

II. EASE OF USE OF THE SYSTEM

- | | Low | High |
|---|-----------|------|
| 11. Availability of system when you wanted it. | 1 2 3 4 5 | |
| 12. Ease in using the keyboard. | 1 2 3 4 5 | |
| 13. Quality of the screen display. | 1 2 3 4 5 | |
| 14. Clear directions to operate within the program. | 1 2 3 4 5 | |
| 15. Reading level of the information provided. | 1 2 3 4 5 | |
| 16. Opportunity to make changes within the program. | 1 2 3 4 5 | |
| 17. Ease of printing the information you wanted. | 1 2 3 4 5 | |

III. SELF ASSESSMENTS USED BY THE COMPUTER SYSTEM

- | | Low | High |
|--|-----------|------|
| 18. Estimate of your <u>ability</u> level used. | 1 2 3 4 5 | |
| 19. Measure of occupational <u>interest</u> used (not on SIGI). | 1 2 3 4 5 | |
| 20. Measure of work <u>values</u> used. | 1 2 3 4 5 | |
| 21. Check the following statement which best applies to the self assessment component: | | |
| _____ Exposed me to new information about myself. | | |
| _____ Confirmed what I know about myself. | | |
| _____ Conflicted with what I know about myself. | | |
| _____ Did not pertain to me. | | |

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Leave Blank

IV. QUALITY OF THE OCCUPATIONAL & EDUCATIONAL INFORMATION

- | | Low | High |
|--|-----------|------|
| 22. <u>Arrangement</u> of the information provided. | 1 2 3 4 5 | |
| 23. <u>Correctness</u> of the information provided. | 1 2 3 4 5 | |
| 24. <u>Amount</u> of information provided. | 1 2 3 4 5 | |
| 25. <u>Helpfulness</u> of the information provided. | 1 2 3 4 5 | |
| 26. Check the following statement which best applies to the information component: | | |
| ___ I received all the information I needed. | | |
| ___ I needed more information on educational opportunities. | | |
| ___ I needed more information on occupations. | | |
| ___ I needed more information on decision making. | | |

V. PERCEIVED TOTAL EFFECTIVENESS

- | | Low | High |
|--|-----------|------|
| 27. How <u>helpful</u> was the computer system? | 1 2 3 4 5 | |
| 28. How <u>enjoyable</u> was the experience? | 1 2 3 4 5 | |
| 29. How <u>certain</u> are you about your career choice as a <u>result</u> of using the computer system? | 1 2 3 4 5 | |
| 30. How <u>satisfactory</u> was the computer system compared to a non computer approach? | 1 2 3 4 5 | |
| 31. Since using the computer based career guidance system (check one): | | |
| ___ I have selected an occupation. | | |
| ___ I am seriously considering several occupations. | | |
| ___ I have narrowed my choice down to a broad group of occupations. | | |
| ___ I have developed some vague ideas about occupations. | | |
| ___ I am no closer than before. | | |
| 32. Since using the computer career guidance system, I have: | | |
| ___ Sought out material. | | |
| ___ Talked to a counselor. | | |
| ___ Talked to a parent or other knowledgeable adult. | | |
| ___ Talked to someone in the occupation. | | |
| ___ Not sought out more information. | | |

AS A RESULT OF YOUR EXPOSURE TO COMPUTER ASSISTED CAREER GUIDANCE:

33. What occupation do you plan to enter? _____
34. What is your feeling about this approach to career exploration?

35. What change in the system would you suggest? _____

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